ASCE 1976

COMBINED INDEX

ASCE 1976

Journals (Proceedings)
Civil Engineering,
Transactions,
Manuals and Reports,
and
Miscellaneous Publications

$5.00 (net)

INDEX TO 1976 ASCE PUBLICATIONS

FOREWORD

The 1976 index, which provides a guide to information published by ASCE during 1976, combines material appearing in the Journals (Proceedings Vol. 102), CIVIL ENGINEERING (Vol. 46), Transactions (Vol. 141), Manuals and Reports, and Miscellaneous Publications.

The user will find all articles and papers dealing with specific subject areas listed under one or more appropriate subject headings suggested by the content and application of the paper. The Engineers Joint Council "Thesaurus of Engineering Terms" has been used as the primary source of index terms. The Water Resources Thesaurus of the U.S. Department of the Interior and the Micro-Thesaurus compiled by the Soil Mechanics and Foundations Division of ASCE were also used.

The Index can be used in conjunction with the information-retrieval cards printed in the front of each Journal and to the rear of CIVIL ENGINEERING. The bold key words on the information-retrieval cards are the words used as index terms in the 1976 Index.

The name index contains entries indexed under the names of author, co-authors, discussers, chairmen of committees preparing reports, and deceased members whose memoirs appeared in Transactions.

In the name index, the entry for a Proceedings Paper (under the first name if more than one author) is supplemented by information concerning the discussion, closure, and Transactions digest, if applicable. To find what discussion, if any, there has been for a Proceedings Paper located in the subject index, the reader looks under the entry for the first-named author in the name index. When discussion of a paper from a prior year is published, the original entry is repeated. Discussion over a period of time can be traced until the closure to the paper is located.

When the paper appears in Transactions, the complete entry including original paper, discussion, closure, errata (if applicable), and Transactions citation appears in the name index.

Typical abbreviations used herein are:

Dsc for discussion
Clo for closing discussion
Corr for corrections
Err for errata
Chmn for Chairman of a committee submitting a report
TR for Transactions
TN for Technical Note

Items indexed from ASCE Miscellaneous Publications have the following symbols in the references:

1. EFEEC—Engineering Foundation Conference on Civil and Environmental Aspects of Energy Complexes, August 3-8, 1975
2. GT-75—In-situ Measurement of Soil Properties, Vol. II, Specialty Conference of Geotechnical Engineering Division, Raleigh, N.C., June 2-4, 1975
3. SDNPF—Structural Design of Nuclear Plant Facilities, Vol. III, Chicago, Ill., Dec. 17-18, 1973
4. EFAN—The Constructed Environment with Man as the Measure, Engineering Foundation Conference, Nov. 3-8, 1974
5. OE75—Civil Engineering in the Oceans III, June, 1975, University of Delaware.
6. NMG—Engineering Foundation Conference, Numerical Methods in Geomechanics, June 20-25, 1976, Virginia Polytechnic Institute and State University, Blacksburg, Va.
7. GT76—Rock Engineering for Foundations and Slopes, Specialty Conference of the Geotechnical Engineering Division, Aug. 16-18, 1976, Boulder, Colorado
8. AWB—American Wooden Bridges, 1976
9. SREGM—A Comparative Study of Structural Response to Explosion-Induced Ground Motions, 1975
10. FTTC—Field Test Sections Save Cost in Tunnel Support, 1975
11. DIEE—Dredging and Its Environmental Effects, Mobile, Ala., Jan. 26-28, 1976
12. ST76—Methods of Structural Analysis, Specialty Conference of the Structural Division, Aug. 23-26, 1976, Madison, Wisc.
13. WW76—Rivers 76, Specialty Conference of the Waterways, Harbors and Coastal Engineering Division, Fort Collins, Colo., Aug. 10-12, 1976
14. PROD—The Civil Engineer's Role in Productivity in the Construction Industry, 1976
15. STN75—Structural Design of Nuclear Plants, Dec. 8-10, 1975, Vol. III

16. EFRLD—Responsibility and Liability of Public and Private Interests on Dams, Engineering Foundation Conference, Sept. 28-Oct. 3, 1975
17. IR76—Irrigation and Drainage Division Specialty Conference, Ottawa, Canada, July 21-23, 1976—Environmental Aspects of Irrigation and Drainage
18. BP75—Seminar on the Planning, Design and Implementation of Bicycle and Pedestrian Facilities, December, 1975

Preprints are indicated by the words Preprint and the preprint number and date. They were presented at ASCE National Meetings as follows:

Preprints	*Meeting*	*City*	*Date*
2633-2735	National Convention	San Diego, Calif.	April 5-8, 1976
2736-2821	National Convention and Exposition	Philadelphia, Pa.	Sept. 27-Oct. 1, 1976

Journal Abbreviations: Construction (CO), Engineering Mechanics (EM), Environmental Engineering (EE), Geotechnical Engineering (GT), Hydraulics (HY), Irrigation and Drainage (IR), Power (PO), Structural (ST), Surveying and Mapping (SU), Transportation Engineering (TE), Urban Planning and Development (UP), Waterways, Harbors and Coastal Engineering (WW), Water Resources Planning and Management (WR). Papers sponsored by the Department of Professional Activities appear in "Engineering Issues—Journal of Professional Activities" and are identified by the symbols (EI). Papers appearing in the Transportation Engineering Journal of ASCE include papers approved by the Aerospace, Air Transport, Highway, Pipeline and Urban Transportation Divisions.

The original publication can be found from the index entry as follows: Papers appearing in the Journals (Proceedings) are listed as:

GT7: July 76:721:12240

which would indicate a paper published in the Journal of the Geotechnical Engineering Division, July 1976 on page 721, as Proceedings Paper 12240.

The Transactions entry

TR: 141:385

indicates that the Digest appears in Transactions, Volume 141, on page 385.

Articles and news items published in CIVIL ENGINEERING are represented as:

CE: Mar 76:72

which states that the article appeared in CIVIL ENGINEERING in the March 1976 issue on page 72.

In addition to articles, the following Departments of CIVIL ENGINEERING are indexed: ASCE News, Engineers Notebook, The Readers Write, and The Younger Viewpoint.

Items indexed from Vol. 102 (1976) of the Journals are identified by months. The number of Journals published by a Division in 1976 can be obtained from the number after the last Division abbreviation i.e., GT12, Dec. 1976 identifies the twelfth issue of the Journal of the Geotechnical Engineering Division. The complete list of paper numbers and Journals for 1976 is as follows:

Month	Paper Numbers	CO	EM	EE	EI	GT	HY	IR	PO	ST	SU	TE	UP	WW	WR
Jan.	11815-11875				1	1	1		1	1					
Feb.	11876-11947		1	1		2	2			2		1		1	
Mar.	11948-12009	1				3	3	1		3					
Apr.	12010-12090		2	2	2	4	4			4					1
May	12091-12159					5	5			5		2		2	
June	12160-12222	2	3	3		6	6	2		6					
July	12223-12276				3	7	7			7					
Aug.	12277-12361		4	4		8	8			8		3	1	3	
Sept.	12362-12435	3				9	9	3		9					
Oct.	12436-12506		5	5	4	10	10			10					
Nov.	12507-12581					11	11		2	11		4		4	2
Dec.	12582-12648	4	6	6		12	12	4		12	1				

This annual index has been composed using magnetic tapes of all 1976 entries. To make future issues more useful, interested persons should submit their suggestions for further improvement to:

Information Services
ASCE
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New York, New York 10017

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Bibliographies
American Wooden Bridges, Neal FitzSimons, Chmn., AWB:76, 176pp.
Bibliography on Timber Highway Bridge Design, Thomas G. Williamson, Chmn., ST1:Jan 75:1:11042
Bibliography on Wood and Plywood Diaphragms, J. M. Carney, ST11:Nov 75:2423:11737
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LOMARK: A Bidding Strategy, Richard Louis Wade and Robert B. Harris, CO1:Mar 76:197:11961
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Public Versus Client Interests - An Ethical Dilemma for the Engineer, Terry L. Turnock, EI1:Jan 75:61:11083
A Statement on Professional Services—Competitive Bidding, Gerald L. Devlin, EI1:Jan 75:53:11082

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The Effect of Wave Breaking on the Statistical Distribution of Wave Heights, Ching Ton Kuo, ASCE:June 75:1211
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Field Measurements and Load Spectra of Highway Bridges, Conrad P. Heins, ST76:Aug 76:133
Germany Constructs Steel Box Girder Landmark, Wilhelm Zellner, CE:Apr 75:61
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Stress Ribbon Bridge in Freiburg, Germany, Man-Chung Tang, CE:May 76:75

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Pipeline Bridge Uses Timber Arches, Charles Gary Peterson, CE:Feb 75:58
Short Span Bridges, Kneeland A. Godfrey, Jr., CE: July 75:42
The Turn From Masonry: A Study of Arch Bridges in Reinforced Concrete, David P. Billington, Preprint No.2819, Sept 76, 30pp.

Bridges (Box Girder)
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Germany Constructs Steel Box Girder Landmark, Wilhelm Zellner, CE:Apr 75:61
Model Studies of Multicell Curved Box-Girder Bridges, Mohammad Aslam and William G. Godden, EM3:June 75:207:11366
Model Study of Horizontally Curved Box Girder, Adel R.M. Fam and Carl J. Turkstra, ST5:May 76: 1097:12151

Rio-Niteroi Bridge Features Record Girder Span, Gerald F. Fox and H. James Graham, CE:Apr 76: 86
Shear Lag in Shallow Wide-Flanged Box Girders, Karl Van Dalen and Sanivarapu V. Narasimham, ST10:Oct 76:1969:12449
Short Span Bridges, Kneeland A. Godfrey, Jr., CE: July 75:42
Steel Box-Girder Bridges—Ultimate Strength Considerations, Charles G. Culver, Chmn., ST12: Dec 74:2433:11014
Strength of Steel Box-Girder Bridges, Patrick J. Dowling, ST9:Sept 75:1929:11550

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Buckling of Cable-Stayed Girder Bridges, Man-Chung Tang, ST9:Sept 76:1675:12391
Cable-Stayed Versus Classical Suspension Bridge, Walter Podolny, Jr., TE2:May 76:291:12130
"Construction and Design of Cable-Stayed Bridges," by Walter Podolny, Jr. and John B. Scalzi (Book Review), Charles Seim, CE:Oct 76:34
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Bridges (Concrete)
Computer Analysis of Segmentally Erected Bridges, Robert C. Brown, Jr. and Ned H. Burns, ST4:Apr 75:761:11218
Concrete Applications in Transportation Construction (1891-1976), Gordon K. Ray, Preprint No.2745, Sept 76, 29pp.
Displacements and Losses in Multistage Prestressed Members, Amin Ghali, Romy G. Sisodiya and Gamil S. Tadros, ST11:Nov 74:2307:10968
Enclosed Soak System for Deep Polymer Impregnation of Concrete Bridge Decks, Paul R. Blankenhorn, Richard E. Weyers, Donald E. Kline and Philip D. Cady, TE1:Feb 75:65:11102
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Fifty-Year Advancement in Concrete Bridge Construction, Tung. Y. Lin and Felix Kulka, CO3: Sept 75:491:11558
Los Angeles Pioneers Separate Busway, Richard C. Gallagher, CE:Jan 75:64
Model Studies of Multicell Curved Box-Girder Bridges, Mohammad Aslam and William G. Godden, EM3:June 75:207:11366
Model Study of New Standard Prestressed Concrete Bridge, Barrington deV. Batchelor, T. Ivan Campbell, Douglas W. McEwen and Paul Csagoly, ST9:Sept 76:1789:12417
News in Bridge Decks, Kneeland A. Godfrey, Jr., CE:Aug 75:60
Post-Tensioned Slab Bridges on Isolated Supports, Roger Green, ST1:Jan 75:233:11065
Prestressed Concrete Bridges, Brice F. Bender, Preprint No.2742, Sept 76, 20pp.
Segmental Bridges in Oregon, Louis F. Pierce, TE4: Nov 76:673:12548
Shear Strength of Two-Way Bridge Slabs, Barrington deV. Batchelor and Ian R. Tissington, ST12:Dec 76:2315:12604
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Enclosed Soak System for Deep Polymer Impregnation of Concrete Bridge Decks, Paul R. Blankenhorn, Richard E. Weyers, Donald E. Kline and Philip D. Cady, TE1:Feb 75:65:11102
News in Bridge Decks, Kneeland A. Godfrey, Jr., CE:Aug 75:60
Salt Damaged Bridge Decks: Cathodic Helps, Virginia Fairweather, CE:Sept 75:88
Short Span Bridges, Kneeland A. Godfrey, Jr., CE: July 75:42

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Fifty-Year Development Construction of Steel Girder Bridges, Edward A. Burroughs, CO3:Sept 75:463:11549
Fracture Sensitivity of Dynamically Loaded Girders, Donald S. Mansell and Peter Dobos, ST12:Dec 75: 2523:11754
Los Angeles Pioneers Separate Busway, Richard C. Gallagher, CE:Jan 75:64
Multispan Stayed Girder Bridges, Niels J. Gimsing, ST10:Oct 76:1989:12470
Prestressed Composite Continuous Bridge Girder, Subhash C. Anand and Clarence J. Fennell, III, TN: ST1:Jan 76:313:11821
Skew and Elevated Support Effects on Curved Bridges, Donald W. Funkhouser and Conrad P. Heins, ST7:July 74:1379:10670
Theoretical Analysis of Curved Girder Bridges, Terry R. Douglas and Samuel C. Gambrell, Jr., EM5:Oct 74:991:10871

Bridges (Highway)
Bibliography on Timber Highway Bridge Design, Thomas G. Williamson, Chmn., ST1:Jan 75:1:11042
Enclosed Soak System for Deep Polymer Impregnation of Concrete Bridge Decks, Paul R. Blankenhorn, Richard E. Weyers, Donald E. Kline and Philip D. Cady, TE1:Feb 75:65:11102
Field Measurements and Load Spectra of Highway Bridges, Conrad P. Heins, ST76:Aug 76:133
Interstate Squeezes through River Gorge, CE:June 75:54
Polymer-Impregnated Concrete: Field Studies, Harshavardhan C. Mehta, John A. Manson, Wai F. Chen and John W. Vanderhoff, TE1:Feb 75:1: 11103
Service Load and Fatigue Tests on Truss Bridges, Hotten A. Elleby, Wallace W. Sanders, Jr., F. Wayne Klaiber and M. Douglas Reeves, ST12:Dec 76:2285:12625

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Fifty-Year History of Movable Bridge Construction - Part I, Egbert R. Hardesty, Henry W. Fischer and Richard W. Christie, CO3:Sept 75:511:11565
Fifty-Year History of Movable Bridge Construction— Part III, Reece H. Wengenroth, Howard A. Mix and Egbert R. Hardesty, CO3:Sept 75:545:11555

Bridges (Movable)
Fifty-Year History of Movable Bridge Construction - Part I, Egbert R. Hardesty, Henry W. Fischer and Richard W. Christie, CO3:Sept 75:511:11565
Fifty-Year History of Movable Bridge Construction- Part II, Egbert R. Hardesty, Henry W. Fischer and Richard W. Christie, CO3:Sept 75:529:11594
Fifty-Year History of Movable Bridge Construction— Part III, Reece H. Wengenroth, Howard A. Mix and Egbert R. Hardesty, CO3:Sept 75:545:11555

Bridges (Orthotropic)
Bending of Skew Orthotropic Plate Structures, John B. Kennedy and Davalath S.R. Gupta, ST8:Aug 76: 1559:12302
Commentary on Orthotropic-Deck Bridge Specifications, Charles G. Schilling, Chmn., ST1:Jan 74:109:10273

Bridges (Piers)
Hydrodynamic Forces on Multiple Circular Cylinders, Tokuo Yamamoto, HY9:Sept 76:1193: 12395
Lateral Load-Deflection Prediction for Pile Groups, Harry G. Poulos, GT1:Jan 75:19:11061
Tests of Scour Protection for Bridge Piers, Chesley J. Posey, HY12:Dec 74:1773:11017

Bridges (Railroad)
American Wooden Bridges, Neal FitzSimons, Chmn., AWB:76, 176pp.
Rating and Reliability of Railway Bridges, William G. Byers, ST76:Aug 76:153
Stress Cycles for Fatigue Design of Railroad Bridges, Roman Wolchuk and Ronald M. Mayrbaurl, ST1: Jan 76:203:11857

Bridges (Spans)
Design Considerations in Long Span Steel Bridges, Chris S.C. Yiu and Man-Chung Tang, Preprint No.2785, Sept 76, 30pp.
News in Bridge Decks, Kneeland A. Godfrey, Jr., CE:Aug 75:60
Short Span Bridges, Kneeland A. Godfrey, Jr., CE: July 75:42

Bridges (Steel)
Design Considerations in Long Span Steel Bridges, Chris S.C. Yiu and Man-Chung Tang, Preprint No.2785, Sept 76, 30pp.
Fatigue and Fracture of Bridge Steels, Richard Roberts and George R. Irwin, ST2:Feb 76:337: 11913
Fifty-Year Development: Construction of Steel Hybrid Bridges, Ralph F. Trepal, CO4:Dec 75:719: 11765
First Bridge Across the Yukon River, Lawrence Carlson, Roy C.J. Dreyer and Rodney Platzke, CE: Aug 76:47
Germany Constructs Steel Box Girder Landmark, Wilhelm Zellner, CE:Apr 75:61
Hardinge Bridge Span Repair, Amitabha Ghosal, Jagadish C. Ganguly, Himangsu K. Banerjee and Mahesh P. Kapoor, CO4:Dec 74:631:11034
History of the Theory of Bridge Structures, Bogdan O. Kuzmanovic, Preprint No.2738, Sept 76, 32pp.
Most Beautiful Bridges Named by AISC, CE:Sept 76: 17
Preassembled Steel Space Frame Bridge, Michael M. Sprinkel and David Morris, TN: CO3:Sept 76:561: 12371
Short Span Bridges, Kneeland A. Godfrey, Jr., CE: July 75:42
Steel Box-Girder Bridges—Ultimate Strength Considerations, Charles G. Culver, Chmn., ST12: Dec 74:2433:11014
Strength of Steel Box-Girder Bridges, Patrick J. Dowling, ST9:Sept 75:1929:11550
Stress Cycles for Fatigue Design of Railroad Bridges, Roman Wolchuk and Ronald M. Mayrbaurl, ST1: Jan 76:203:11857

Bridges (Structures)
American Wooden Bridges, Neal FitzSimons, Chmn., AWB:76, 176pp.
Analysis of Cable-Stiffened Space Structures, Nicholas F. Morris, ST3:Mar 76:501:11998
Analysis of Fatigue of Welded Crane Runway Girders, David A. Demo and John W. Fisher, ST5: May 76:919:12106
Art in Engineering - The Need for a New Criticism, David P. Billington, PP4:Oct 73:499:10102
Bending of Skew Orthotropic Plate Structures, John B. Kennedy and Davalath S.R. Gupta, ST8:Aug 76: 1559:12302
Bibliography on Timber Highway Bridge Design, Thomas G. Williamson, Chmn., ST1:Jan 75:1:11042
Bridge Construction Surveying, Ray W. Burgan, Jr., CO2:June 74:105:10602
Buckling of Cable-Stayed Girder Bridges, Man-Chung Tang, ST9:Sept 76:1675:12391
California's Seismic Design Criteria for Bridges, James H. Gates, ST12:Dec 76:2301:12636
Case Study of Burr Truss Covered Bridge, Emory L. Kemp and John Hall, EI3:July 75:391:11461
Civil Engineering History Gives Valuable Lessons, Sara Ruth Watson, CE:May 75:48
Coefficients to Analyze Rectangular Slab Bridges, Iman Hossain, ST1:Jan 75:151:11048
Commentary on Orthotropic-Deck Bridge Specifications, Charles G. Schilling, Chmn., ST1:Jan 74:109:10273
Design Considerations in Long Span Steel Bridges, Chris S.C. Yiu and Man-Chung Tang, Preprint No.2785, Sept 76, 30pp.
Displacements and Losses in Multistage Prestressed Members, Amin Ghali, Romy G. Sisodiya and Gamil S. Tadros, ST11:Nov 74:2307:10968
Early Developments in American Concrete, Russell S. Fling, Preprint No.2791, Sept 76, 24pp.
Effective Composite Beam Width at Ultimate Load, Conrad P. Heins and Horn Ming Fan, ST11:Nov 76:2163:12538
Elements of Steel Structures — History, State-of-the-Art, and Potential Developments: Columns, Reidar Bjorhovde, Preprint No.2786, Sept 76, 24pp.
Evergreen Point Bridge Maintenance Problems, Colin B. Brown, D. R. Christensen and G. F. Demich, ST76:Aug 76:189
Experimental Bridge Girder of Reinforced Plastic, Fred C. McCormick, TE1:Feb 75:47:11104
Fatigue and Fracture of Bridge Steels, Richard Roberts and George R. Irwin, ST2:Feb 76:337: 11913
Fatigue Provisions of AASHTO Specifications, Kadir M. Kusmez and Chi C. Tung, ST9:Sept 76:1725: 12385
Fifty-Year Advancement in Concrete Bridge Construction, Tung. Y. Lin and Felix Kulka, CO3: Sept 75:491:11558
Fifty-Year Development — Construction of Steel Truss Bridges, Lawrence N. Bigelow, CO2:June 75: 239:11381
Fifty-Year Development — Construction of Steel Pipeline Suspension Bridges, John F. Cain, CO4: Dec 75:733:11768
Fifty-Year Development: Construction of Steel Arch Bridges, William F. Hollingsworth, CO1:Mar 75:85: 11187
Fifty-Year Development Construction of Steel Girder Bridges, Edward A. Burroughs, CO3:Sept 75:463:11549
Fifty-Year Development: Construction of Steel Hybrid Bridges, Ralph F. Trepal, CO4:Dec 75:719: 11765
Fifty-Year History of Movable Bridge Construction - Part I, Egbert R. Hardesty, Henry W. Fischer and Richard W. Christie, CO3:Sept 75:511:11565
Fifty-Year History of Movable Bridge Construction— Part III, Reece H. Wengenroth, Howard A. Mix and Egbert R. Hardesty, CO3:Sept 75:545:11555
Fracture Sensitivity of Dynamically Loaded Girders, Donald S. Mansell and Peter Dobos, ST12:Dec 75: 2523:11754
History of the Theory of Bridge Structures, Bogdan O. Kuzmanovic, Preprint No.2738, Sept 76, 32pp.
How Almost Anyone Can Design a Good Looking Bridge in One Easy Lesson, William Zuk, ST76: Aug 76:19
Load Factor Analysis of Design of Bridges, James C. Porter, ST5:May 76:891:12098
Load Factor Design of Continuous-Span Bridges, Conrad P. Heins and Alan D. Kurzweil, ST6:June 76:1213:12219
Los Angeles Pioneers Separate Busway, Richard C. Gallagher, CE:Jan 75:64

Low-Temperature Tests of Simulated Bridge Members, Charles G. Schilling, Karl H. Klippstein, John M. Barsom, Stephan R. Novak and Gilbert T. Blake, ST1:Jan 75:31:11049
Maintenance of Services during Construction, Claude Cossette and Ernest Zbinden, CO1:Mar 75:155:11186
Minimum Cost Design of Elevated Transit Structures, Antoine E. Naaman and Marshall L. Silver, CO1:Mar 76:99:11986
Pavement Applications for Steel Fibrous Concrete, David R. Lankard and Alvin J. Walker, TE1:Feb 75:137:11108
Photoelastic Model of Bridge Cross-Frame Junction, Alex S. Redner and Leonard Pompa, EM4:Aug 76:659:12347
Pipeline Bridge Uses Timber Arches, Charles Gary Peterson, CE:Feb 75:58
Polymer-Impregnated Concrete: Field Studies, Harshavardhan C. Mehta, John A. Manson, Wai F. Chen and John W. Vanderhoff, TE1:Feb 75:1:11103
Polymer-Impregnated Concrete: Laboratory Studies, Einar Dahl-Jorgensen, Wai F. Chen, John A. Manson, Yu-Nan Liu and John W. Vanderhoff, TE1:Feb 75:29:11101
The Seismic Design of the Dumbarton Bridge, Charles Seim, Preprint No.2811, Sept 76, 25pp.
Some Esthetic Considerations in Steel Design, Thomas C. Kavanagh, ST11:Nov 75:2257:11718
State-of-the-Art Report on Ultimate Strength of I-Beam Bridge Systems, Conrad P. Heins, Chmn., ST5:May 75:1085:11323
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Hawaii's Offshore Runway, Wayne L. Rickerd, Preprint No.2696, Apr 76, 19pp.
Lake Erie Airport Study — A Status Report, Herbert R. Crawford, Preprint No.2635, Apr 76, 27pp.
Man-Induced Changes of Middle Mississippi River, Michael A. Stevens, Daryl B. Simons and Stanley A. Schumm, WW2:May 75:119:11281
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Quarantine Island Disposal Plan, George Marsch, DIEE:Jan 76:579
Some Geotechnical Aspects of Marginal Wharf Design, William Enkeboll and Vernon A. Smoots, Preprint No.2699, Apr 76, 24pp.
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Hydrodynamic Forces on Cables Subject to Frequency Varied Motion, Robert W. Haas and Richard F. Dominguez, Preprint No.2728, Apr 76, 26pp.
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A Review of Electronic Computing for Civil Engineering Within the Federal Government, David R. Schelling, Preprint No.2818, Sept 76, 29pp.
Water Quality Law in Federal Republic of Germany, Klaus Seifert and T. Clark Lyons, WR1:Apr 76:23: 12071
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Massive Compaction of Granular Soil — How We Stand, Henry W. Janes and Robert D. Anderson, Preprint No.2777, Sept 76, 28pp.
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Structural Response to Wave and Current Forces, Song S. Wu and Chi C. Tung, OE75:June 75:849
Tension Leg Platforms: Design and Performance, Dean A. Kypke and Leonardo Perez y Perez, Preprint No.2698, Apr 76, 30pp.
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Status of NOAA's Ocean Dumping Research in the New York Bight, R. Lawrence Swanson, Preprint No.2690, Apr 76, 30pp.
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Introduction to Colonial Ports, Richard L. Schultz, Preprint No.2774, Sept 76, 6pp.
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Axial Compression of Formed-Faced Sandwich Panels, Ken P. Chong, Pei-Chung Liu and Kjell Oistein Engen, Preprint No.2807, Sept 76, 22pp.

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Ground-Water Pollution Near a Landfill, William E. Kelly, EE6:Dec 76:1189:12609
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"Manual of Engineering Practice on Sanitary Landfill," by the ASCE Solid Waste Management Committee of the Environmental Engineering Division (Book Review), Frank J. Humenik, CE: Aug 76:34
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